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EXAMINER

VU, NGOC K

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/882,487

Applicant(s)

CONNELLY, JAY H.

Examiner

Ngoc K. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6-26, 29-35 and 38-56 is/are rejected.
- 7) ☒ Claim(s) 2-5, 27, 28, 36 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments with respect to claims 1, 6-26, 29-35 and 38-56 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 44 is objected to because of the following informalities: it is noted that term "a second communication link" is previously defined in lines 5-6, while the term "the second communications link" is recited in lines 16-17. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 44-56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 44 is indefinite because there is no antecedent basis for the limitation recites the limitation "the broadcast system" in line 24.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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6. Claims 1, 20-23, 26 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Dudkiewicz (US 20020152474 A1).

Regarding claim 1, Dudkiewicz discloses a method for generating an opportunistic broadcast schedule, comprising:

broadcasting meta-data to a plurality of client systems, the meta-data including descriptions of a plurality of pieces of content that are in consideration for inclusion in upcoming, yet to be scheduled, broadcasts (see 0053, 0064 and 0076);

receiving individual sets of client demand feedback data (scores from user input) from at least a portion of said plurality of client systems, each individual set of client demand feedback data comprising data indicating a client interest level in at least a portion of the plurality of pieces of content (see 0077, 0078);

determining a piece of content from among said plurality of pieces of content that is most opportunistic for a next broadcast by aggregating the individual sets of client demand feedback data (processing metadata by using scores for determining a preferred programming event having a preferred score for a next or upcoming broadcast – see 0094, 0106); and

scheduling the piece of content that is determined to be most opportunistic to broadcast for a next broadcast (scheduling the preferred programming event for next broadcast – see 0105, 0106).

Regarding claim 20, Dudkiewicz discloses broadcasting schedule prior to broadcasting the piece of content that is determined to be the most opportunistic for the next broadcast (see 0079).

Regarding claims 21-23, Dudkiewicz discloses transmitting preferred programming events to one viewer or a groups of viewers. An index of preferred programming events may be

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made accessible to viewer to allow viewers to select programming events for transmission (see 0106).

Regarding claim 26, Dudkiewicz discloses an apparatus, comprising:

a processor (at programming event provider 184) having circuitry to execute instructions;

a communications interface (at programming event provider 184) coupled to the

processor to receive data from the one or more client systems;

a storage device coupled to the processor (at programming event provider 184), having sequences of instructions stored therein (see 0105), which when executed by the processor cause the apparatus to

receive individual sets of client demand feedback data from a plurality of client systems (scores from user input), each individual set of client demand feedback data generated in response to meta-data that is broadcast to the plurality of client systems, the meta-data including descriptions of a plurality of pieces of content that are in consideration for inclusion in upcoming, yet to be scheduled, broadcasts, each individual set of client demand feedback data indicating a client interest level in at least a portion of the plurality of pieces of content (see 0053, 0064 and 0076-0078);

determine a piece of content from among said plurality of pieces of content that is most opportunistic for a next broadcast by aggregating the individual sets of client demand feedback data (processing metadata by using scores for determining a preferred programming event having a preferred score for a next or upcoming broadcast – see 0094, 0106); and

schedule the piece of content that is determined to be most opportunistic to broadcast for a next broadcast (scheduling the preferred programming event for next broadcast – see 0105, 0106).

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Regarding claim 35, Dudkiewicz discloses a machine-readable medium (memory) having a plurality of machine-executable instructions stored thereon, which when executed by a machine (processor - see 0105) cause the machine to:

receive individual sets of client demand feedback data from a plurality of client systems (scores from user input), each individual set of client demand feedback data generated in response to meta-data that is broadcast to the plurality of client systems, the meta-data including descriptions of a plurality of pieces of content that are in consideration for inclusion in upcoming, yet to be scheduled, broadcasts, each individual set of client demand feedback data indicating a client interest level in at least a portion of the plurality of pieces of content (see 0053, 0064 and 0076-0078);

determine a piece of content from among said plurality of pieces of content that is most opportunistic for a next broadcast by aggregating the individual sets of client demand feedback data (processing metadata by using scores for determining a preferred programming event having a preferred score for a next or upcoming broadcast – see 0094, 0106); and

schedule the piece of content that is determined to be most opportunistic to broadcast for a next broadcast (scheduling the preferred programming event for next broadcast – see 0105, 0106).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dudkiewicz (US 20020152474 A1).

Regarding **claim 25**, Dudkiewicz discloses broadcasting the program that is determined to be the most opportunistic for a next broadcast (see 0106). Dudkiewicz does not explicitly disclose broadcasting using statistical multiplexing. Official Notice is taken that utilizing statistical multiplexing mechanism to provide the advantage that channel allocation to be extremely dynamic, resulting in lower data transfer capacity and, the assigned capacity being brought into more efficient use is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dudkiewicz by utilizing statistical multiplexing mechanism to provide the advantage that channel allocation to be extremely dynamic, resulting in lower data transfer capacity and, the assigned capacity being brought into more efficient use.

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dudkiewicz (US 20020152474 A1) in view of Bertram et al. (US 20030103532 A1).

Regarding **claim 24**, Dudkiewicz discloses broadcasting the program that is determined to be the most opportunistic for a next broadcast (see 0106). Dudkiewicz does not explicitly disclose broadcasting using post multiplex insertion of null data packets. However, Bertram discloses multiplexing the transport encoded content data with a plurality of null transport packets to provide place holder for the asset data transport packets, and replacing the null transport packets with asset data transport packets prior to transmitting the multiplexed transport stream to a set top box (see abstract and summary of the invention). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dudkiewicz by multiplexing the transport encoded content data with a

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plurality of null transport packets as disclosed by Bertram in order to provide space for inserting the asset data transport packets.

10. Claims 6-19, 29-34 and 38-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dudkiewicz (US 20020152474 A1) in view of Herz (US 6,088,722 A).

Regarding **claim 6**, Dudkiewicz discloses preferred programming event having highest score (see 0094, 0085). Dudkiewicz does not explicitly disclose ratings data corresponding to respective pieces of content, and the piece of content that is determined to be most opportunistic to broadcast comprises a highest rated piece of content derived from an aggregation of the ratings data. However, Herz discloses the feedback from customers includes ratings data corresponding to program, e.g., preferred level for the characteristic of video program. For example, if the level of "action" in a section of the movie "First Blood" is assigned a value of 8, the customer may give 4-6 as his/her acceptance range. The customer may state his/her disagreement with the rating of a characteristic in a video program and put forward his/her own rating for each characteristic in the program. The feedback from the customers regarding what characteristics they find most desirable in the broadcast shows. (see col. 14, lines 17-20; col. 15, lines 63-66; col. 23, lines 22-24; col. 30, lines 26-38). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Dudkiewicz by including ratings data corresponding to respective pieces of content from the customer feedback, and the program that is determined to be most opportunistic to broadcast comprises a highest rated program derived from an aggregation of the ratings data as disclosed by Herz in order to effectively provide the most desirable program to the customer.

Regarding **claim 7**, Dudkiewicz as modified by Herz further discloses that a possible approach to scheduling is that for each program its top n most-preferred broadcast windows are determined from the average of the calculated objective values. The scheduler then uses some methods to find a solution in which the average objective value reaches reasonably high value, and in which the time slots are covered (see Herz: col. 23, lines 14-31).

Regarding **claim 8**, Dudkiewicz as modified by Herz further discloses that if the level of "action" in a section of the movie "First Blood" is assigned a value of 8, the customer may give 4-6 as his/her acceptance range. The customer may state his/her disagreement with the rating of a characteristic in a video program and put forward his/her own rating for each characteristic in the program. The customer may state his/her disagreement with the rating of a characteristic in a video program and put forward his/her own rating for each characteristic in the program (see col. 14, lines 36-41; col. 15, lines 63-66).

Regarding **claim 9**, Dudkiewicz as modified by Herz further discloses that the ratings data is automatically generated by the client systems based on data, e.g., user preferences or profile, stored on the client systems that are indicative of content preferences of users of the client systems (see Herz: col. 12, lines 31-48).

Regarding **claim 10**, Dudkiewicz as modified by Herz further discloses that the customer may state his/her disagreement with the rating of a characteristic in a video program and put forward his/her own rating for each characteristic in the program. This provides a mechanism for adjustment of the content profiles (see col. 15, lines 63-67).

Regarding **claim 11**, Dudkiewicz as modified by Herz further discloses that if the level of "action" in a section of the movie "First Blood" is assigned a value of 8, the customer may give 4-6 as his/her acceptance range. The customer may state his/her disagreement with the rating of a characteristic in a video program and put forward his/her own rating for each characteristic

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in the program. The customer may state his/her disagreement with the rating of a characteristic in a video program and put forward his/her own rating for each characteristic in the program (see col. 14, lines 36-41; col. 15, lines 63-66). Herz further discloses that the ratings data is automatically generated by the client systems based on data, e.g., user preferences or profile, stored on the client systems that are indicative of content preferences of users of the client systems (see Herz: col. 12, lines 31-48).

Regarding **claim 12**, Dudkiewicz discloses that the meta-data is broadcast as a broadcast stream and includes a descriptor for each program comprising a set of attributes and attribute values that are used to describe that program (see Dudkiewicz: 0053, 0064 and 0076). Dudkiewicz as modified by Herz further discloses the client system provides ratings data correspond to a program in response to receiving the descriptor for the program (see Herz: col. 46, lines 56-65).

Regarding claims **13, 29, 32, and 41**, the interpretation for these claims is similar to interpretation for claim 6 above.

Regarding claims **14 and 38**, the interpretation for these claims is similar to interpretation for claim 7 above.

Regarding **claim 15**, the interpretation for these claims is similar to interpretation for claim 8 above.

Regarding **claim 16**, the interpretation for these claims is similar to interpretation for claim 9 above.

Regarding **claim 17**, the interpretation for these claims is similar to interpretation for claim 10 above.

Regarding claims **18, 30, 33, 39, and 42**, interpretation for these claims is similar to interpretation for claim 11 above.

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Regarding **claims 19, 31, 34, 40, and 43**, interpretation for these claims is similar to interpretation for claim 12 above.

Allowable Subject Matter

11. Claims 2-5, 27, 28, 36 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 44-56 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can normally be reached on Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ngoc K. Vu
Primary Examiner
Art Unit 2611

July 11, 2005